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BEFORE THE FEDERAL COMMUNICATIONS COMMISSION
EN BANC HEARING ON DIGITAL TELEVISION
MM Docket No. 87-268

December 12, 1995

Good morning Mr. Chairman, Commissioners, ladies and gentlemen. As you know, I have been privileged to serve as Chairman of your Advisory Committee on Advanced Television Service since it was established in 1987. In this role, I have overseen the Advisory Committee's eight years of work, which culminated two weeks ago in a final report and recommendation to the Commission. Because the Committee's history and findings are adequately described in that document, I will not repeat that information today. I would like, however, to briefly discuss a few key Advisory Committee conclusions on technology.

In addition, because I had an opportunity during my chairmanship to consider many of the difficult policy issues currently before the FCC and Congress, I would like to offer my personal views on four recently-voiced criticisms of the FCC's ATV transition plans.

I. KEY ADVISORY COMMITTEE CONCLUSIONS ON TECHNOLOGY

I am very pleased to report that the ATV standard we recommended to you last month embodies the world's best advanced television technology. If adopted by the Commission, it would permit American viewers to enjoy HDTV's stunningly high-quality pictures and sound, increased program outlets of standard definition television during some day parts, and the myriad NII data services made possible by the standard's flexible, all-digital design.

Nonetheless, over the past year or so, a few entities have raised questions concerning various aspects of the standard we unanimously recommended. These individuals or companies usually imply that the Advisory Committee failed to consider or somehow overlooked their proposed technical solution. This simply is not true. No television system has ever been so fully considered, broadly designed, thoroughly tested, and widely supported. We have presented the

Commission with a consensus-based standard that, to the extent feasible, is inclusive -- not exclusive -- of the needs of all interested industries.

Progressive and Interlace Scanning Formats

Some of the most intense technical discussions in the Committee concerned progressive and interlace scanning. Both methods have clear advantages and ardent advocates. Broadcasters and the cable industry insisted on including interlace because of the higher resolution it offers. The computer industry demanded progressive scanning to facilitate interoperability with computer systems. Fortunately, the Grand Alliance technology is flexible enough to incorporate both scanning modes in the standard (at minimal additional cost). There was overwhelming consensus for this approach, which reasonably meets the needs of all affected industries. Conversely, there was absolutely no record of support for dropping either mode. Although not possible with today's compression technology, the Advisory Committee believes that an over-1000 line, 60 Hz progressively scanned system would be preferable and that improvements in compression should be pursued in order to "migrate" the standard to this format as soon as technically feasible.

SDTV Formats

At the request of Chairman Hundt, the Advisory Committee recommended inclusion of standard definition ("SDTV") formats in the ATSC standard. To facilitate compatibility with SDTV systems currently in use, the recommended formats have the same number of lines and pixels per line as today's key television and computer standards. The Grand Alliance system's capability of transporting four separate signals, any or all of which could be SDTV video, was demonstrated. The vast majority of technical experts believed there was no need to test the SDTV formats themselves, but believed a demonstration would be appropriate at some point soon.

VSB Transmission

The Committee recommended a standard that employs so-called VSB modulation which, along with another modulation technique, QAM, was being considered by the Grand Alliance and Advisory Committee in early 1994. A stringent comparative test or "bake-off," as it was known, showed that the VSB modem was superior for broadcasting; there was little difference between the two for cable. Because of imbedded investments and other reasons, many cable systems will use QAM. The Committee concluded that there will be little additional cost to consumers for receivers to employ circuitry for both techniques. A third modulation scheme, known as COFDM, was investigated but was not found to be demonstrably superior to VSB.

Other Design Features

The system has numerous other design characteristics that enhance interoperability, technical quality, and international compatibility. Key among these is the use of MPEG-2 transport and video compression. The packetized MPEG transport design provides interoperability with computer and telecommunications network architectures, such as ATM, and gives the Grand Alliance system its great flexibility to carry an ever-changing variety of services. MPEG compression dramatically reduces the amount of data needed to produce pictures. Both MPEG standards are widely accepted around the world.

II. ATV POLICY ISSUES

Having reviewed these key Advisory Committee technical decisions, I would like to offer my thoughts on a few policy issues currently before the Commission and Congress. Specifically, I would like to spend the rest of my time this morning answering recent criticisms -- from Capitol Hill and elsewhere -- of the FCC's current ATV transition plan to loan broadcasters a second channel for a transition period. In general, I believe that this plan is the best way for the American public to continue to receive the benefits of broadcast television while they gradually transition to digital technology.

Spectrum Plan

Some critics, however, have said that the transition plan represents a "give-away" of valuable frequencies to existing broadcasters. But, in reality, it is only an exchange of one spectrum block for another, with the public getting a greatly enhanced service in the process. The "new" spectrum has been allocated to television broadcasting for over forty years but, because of technical limitations associated with analog transmissions, has lain fallow until now. Broadcast licensees should not be allowed to retain two channels. Rather, they must undergo the expense of operating both until the change-over to digital reception is completed. When the transition is complete, spectrum now designated for broadcasting could be relinquished for other purposes.

Auctions of the Digital Channel

Others have said that the broadcasting spectrum intended for digital transmissions should be auctioned in order to help alleviate the budget deficit. But this idea would disrupt the orderly transition that the FCC has envisioned and, in all likelihood, would deprive viewers of free over-the-air broadcasting of the full advantages of digital television. For example, if HDTV is developed at all, it probably would become a premium subscription service, offered only by cable and DBS operators. In my judgment, a better alternative is to subject the returned spectrum to competitive bidding near the end of the transition

period. This concentrated spectrum block likely would be more valuable than the HDTV channels which are scattered throughout the broadcast frequencies.

Reduced Spectrum

A few critics have suggested that broadcasters should be given less than a full second channel. But the Grand Alliance system cannot be sliced up, with each licensee getting only a "small sliver" (to quote one critic) to transmit in digital format. Instead, an entirely new transmission system would have to be designed and tested and a new methodology developed for assigning spectrum to broadcast stations. Even assuming that companies had the incentive to take on this task following the huge investment made in the Grand Alliance system, it would take years to do so. And in the meantime, broadcast viewers would be denied the services provided by digital HDTV (including NII interoperability), and the U.S. could well lose its position of superiority in this exciting new technology.

SDTV Only

Finally, some have intimated that lower resolution digital television is just as good as HDTV. But hundreds of technical experts and lay viewers who participated in the Advisory Committee process did not see it this way. The truth is that high definition technology presents a whole new video platform and a quantum leap forward in the state of the art. And when we build it, I believe the viewers will come. Fortunately, however, the Grand Alliance's supple framework eliminates any need for a choice -- both higher and lower definition digital programs can be accommodated in different day parts.

III. CONCLUSION

The United States -- and this Commission -- stand today on the threshold of an exciting new video era. To bring it to fruition, what is initially required is the adoption of a new television transmission standard. I urge you to do so as soon as feasible so that our citizens can be afforded the opportunity to enjoy the very best that technology has to offer. In my judgment, the Grand Alliance standard clearly embodies this paradigm. And again, on behalf of the Advisory Committee, I am pleased to recommend it to you.

Thank you for allowing me to address you, and good luck in your future determinations.

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